Application Number **10/607,940**
Amendment dated **1 February 2006**
Reply to Office Action of **4 October 2005**

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (previously presented): A mathematics education apparatus comprising:

a base array comprising a plurality of rows, wherein each row comprises ten receiving positions; and

a plurality of number pieces associated with a plurality of corresponding numbers, including at least one number piece corresponding to each of the numbers one through ten, wherein the number pieces have a linear length that is proportional to the number corresponding to that number piece, and wherein the number pieces are configured to cover a quantity of receiving positions on the base array equal to the number corresponding to that number piece;

wherein the receiving positions on the base array are labeled with number labels, and wherein the number labels are printed on a labeling apparatus that can be removably attached to the base array.

Claim 2 (original): The mathematics education apparatus of Claim 1, wherein the rows are oriented vertically.

Claim 3 (original): The mathematics education apparatus of Claim 1, further comprising an instruction apparatus containing instructions for using the array and number pieces to teach mathematical concepts.

Claim 4 (original): The mathematics education apparatus of Claim 1, wherein the base array is substantially two-dimensional.

Claim 5 (original): The mathematics education apparatus of Claim 1, wherein the number pieces are substantially two-dimensional.

Claim 6 (original): The mathematics education apparatus of Claim 1, wherein the receiving positions on the base array are setoff from each other with a visual indicator.

Claim 7 (original): The mathematics education apparatus of Claim 1, wherein the number pieces are configured to engage the base array using magnets.

Claim 8 (original): The mathematics education apparatus of Claim 1, wherein the number pieces are configured to engage the base array using a removable fastener system.

Claim 9 (cancelled).

Claim 10 (original): The mathematics education apparatus of Claim 1, wherein the plurality of base array rows are the same length.

Claim 11 (original): The mathematics education apparatus of Claim 1, wherein the base array further comprises a gap region positioned between each of the plurality of rows.

Claim 12 (original): The mathematics education apparatus of Claim 1, wherein the base array comprises ten rows.

Claims 13–15 (cancelled).

Claim 16 (previously presented): The mathematics education apparatus of Claim 1, wherein the number labels are disposed within the receiving position.

Claim 17–19 (cancelled).

Claim 20 (original): The mathematics education apparatus of Claim 1, wherein the receiving positions are arrayed in a plurality of columns.

Claim 21 (original): The mathematics education apparatus of Claim 1, wherein the receiving positions are arrayed in a plurality of columns, and wherein each of the base array columns has a numerical label.

Claim 22 (original): The mathematics education apparatus of Claim 1, wherein each of the base array rows has a numerical label.

Claim 23 (original): The mathematics education apparatus of Claim 1, wherein the receiving positions on the base array comprise recessed portions, and wherein the number pieces include raised portions, such that the raised portions of the number pieces can be received into the recessed portions of the base array.

Claim 24 (original): The mathematics education apparatus of Claim 1, wherein the receiving positions on the base array comprise raised portions, and wherein the number pieces include recessed portions, such that the recessed portions of the number pieces can receive the raised portions of the base array.

Claim 25 (original): The mathematics education apparatus of Claim 1, wherein:

the receiving positions on the base array comprise recessed portions, and wherein the number pieces include raised portions, such that the raised portions of the number pieces can be received into the recessed portions of the base array; and

the number pieces further comprise recessed portions on a surface opposite the number piece raised portions, such that a plurality of number pieces can be stacked atop each other.

Claim 26 (original): The mathematics education apparatus of Claim 1, wherein:

the receiving positions on the base array comprise raised portions, and wherein the number pieces include recessed portions, such that the recessed portions of the number pieces can receive the raised portions of the base array; and

the number pieces further comprise raised portions on a surface opposite the number piece recessed portions, such that a plurality of number pieces can be stacked atop each other.

Claim 27 (original): The mathematics education apparatus of Claim 1, wherein the number pieces are colored according to their corresponding number, such that number pieces corresponding to a particular number have substantially the same color.

Claim 28 (cancelled).

Claim 29 (currently amended): A method for teaching mathematical operations on a plurality of numbers ~~using the mathematics education apparatus of Claim 1~~, the method comprising:

providing a base array comprising a plurality of rows, wherein each row comprises ten receiving positions;

providing a plurality of number pieces associated with a plurality of corresponding numbers, wherein the number pieces have a linear length that is proportional to the number associated with that number piece;

labeling the receiving positions on the base array with number labels, wherein the number labels are removably attachable from the base array; and

disposing number pieces on the base array, ~~and~~ wherein the number pieces correspond to the numbers on which a mathematical operation is to be performed.

Claim 30 (original): The method of Claim 29, wherein the mathematical operation includes at least one of addition, subtraction, multiplication and division.

Claim 31 (original): The method of Claim 29, wherein images of the number pieces and the base array are computer-generated, and wherein disposing the number pieces on the base array is performed using software designed to manipulate the images of the number pieces and the base array.

Claim 32 (currently amended): A mathematics education kit comprising:

an array comprising a plurality of receiving positions, the receiving positions arranged in an array of rows; and

a plurality of number pieces associated with a plurality of corresponding numbers, wherein the number pieces have (a) a dimension that is proportional to the number of units corresponding to that number piece, and (b) a quantity of number piece receiving positions that is equal to the number of units corresponding to that number piece;

wherein the number pieces are configured to overlay a quantity of receiving positions on the base array equal to the number of units corresponding to that number piece;

wherein the number pieces are stackable atop each other using the number piece receiving positions; and

wherein the receiving positions on the array are labeled with numbers, and wherein the receiving position labels are disposed adjacent to the receiving position.

Claim 33 (cancelled).

Claim 34 (original): The mathematics education kit of Claim 32, wherein the plurality of corresponding numbers comprise negative numbers.

Claim 35 (original): The mathematics education kit of Claim 32, wherein the plurality of corresponding numbers comprise fractions.

Claim 36 (original): The mathematics education kit of Claim 32, wherein the plurality of corresponding numbers comprise decimal numbers.

Claim 37 (cancelled).

Claim 38 (previously presented): The mathematics education kit of Claim 32, wherein the receiving position labels are painted on the array.

Claim 39 (cancelled).

Claim 40 (original): The mathematics education kit of Claim 32, wherein the receiving positions on the array are setoff from each other with a visual indicator.

Claim 41 (original): The mathematics education kit of Claim 32, wherein the array is substantially two-dimensional.

Claim 42 (original): The mathematics education kit of Claim 32, wherein the number pieces are substantially two-dimensional.

Claim 43 (original): The mathematics education kit of Claim 32, further comprising an instruction apparatus containing instructions for using the array and number pieces to teach mathematical concepts.

Claim 44 (original): The mathematics education kit of Claim 32, wherein the array of rows are oriented vertically.

Claim 45 (original): The mathematics education kit of Claim 32, wherein the number pieces are configured to engage the array using a removable fastener system.

Claim 46 (cancelled).

Claim 47 (original): The mathematics education kit of Claim 32, wherein the number pieces are configured to engage the array using magnets.

Claim 48 (original): The mathematics education kit of Claim 32, wherein the plurality of array rows are the same length.

Claim 49 (original): The mathematics education kit of Claim 32, wherein each of the array rows have the same number of receiving positions therein.

Claim 50 (original): The mathematics education kit of Claim 32, wherein the array further comprises a gap region positioned between each of the plurality of rows.

Claim 51–53 (cancelled).

Claim 54 (original): The mathematics education kit of Claim 32, wherein the receiving positions are arrayed in a plurality of columns, and wherein each of the array columns has a numerical label.

Claim 55 (original): The mathematics education kit of Claim 32, wherein each of the array rows has a numerical label.

Claim 56 (original): The mathematics education kit of Claim 32, wherein the receiving positions on the array comprise recessed portions, and wherein the number pieces include raised portions, such that the raised portions of the number pieces can be received into the recessed portions of the array.

Claim 57 (original): The mathematics education kit of Claim 32, wherein:

the receiving positions on the array comprise recessed portions, and wherein the number pieces include raised portions, such that the raised portions of the number pieces can be received into the recessed portions of the array; and

the number pieces further comprise recessed portions on a surface opposite the number piece raised portions, such that a plurality of number pieces can be stacked atop each other.

Claim 58 (original): The mathematics education kit of Claim 32, wherein the receiving positions on the array comprise raised portions, and wherein the number pieces include recessed portions, such that the recessed portions of the number pieces can receive the raised portions of the array.

Claim 59 (original): The mathematics education kit of Claim 32, wherein:

the receiving positions on the array comprise raised portions, and wherein the number pieces include recessed portions, such that the recessed portions of the number pieces can receive the raised portions of the array; and

the number pieces further comprise raised portions on a surface opposite the number piece recessed portions, such that a plurality of number pieces can be stacked atop each other.

Claim 60 (original): The mathematics education kit of Claim 32, wherein the number pieces are colored according to their corresponding number, such that all number pieces corresponding to a particular number have substantially the same color.

Claim 61 (original): The mathematics education kit of Claim 32, wherein the array comprises ten rows.

Claim 62 (original): The mathematics education kit of Claim 32, wherein the receiving positions are arrayed in a plurality of columns.

Claim 63 (cancelled).

Claim 64 (currently amended): A method for teaching a mathematical operation ~~mathematical operations~~ on a plurality of numbers ~~using the mathematics education kit of Claim 32~~, the method comprising:

providing a base array having a plurality receiving positions;

providing a plurality of number pieces associated with a plurality of corresponding numbers, wherein the number pieces have a dimension that is proportional to the number associated with that number piece;

labeling the receiving positions on the base array with number labels, wherein the number labels are positioned adjacent to the corresponding receiving position;

placing a first number piece ~~positioning a plurality of number pieces~~ on the array such that the first number piece covers a quantity of receiving positions on the base array equal to the number associated with the first number piece; and

stacking a second number piece on the first number piece, wherein the second number piece covers a quantity of receiving positions on the first number piece equal to the number associated with the second number piece, wherein the first and second number pieces correspond to the numbers on which the mathematical operation is to be performed.

Claim 65 (original): The method of Claim 64, wherein the mathematical operation includes at least one of addition, subtraction, multiplication and division.

Claim 66–70 (cancelled).

Claim 71 (previously presented): A mathematics education kit comprising:

an array comprising a plurality of receiving positions, the receiving positions arranged in an array of rows; and

a plurality of number pieces associated with a plurality of corresponding numbers, wherein the number pieces have a dimension that is proportional to the number of units corresponding to that number piece, and wherein the number pieces are configured to overlay a quantity of receiving positions on the base array equal to the number of units corresponding to that number piece;

wherein the receiving positions on the array are labeled with numbers, and wherein the receiving position labels are printed on a labeling apparatus that can be removably attached to the array.

Claim 72 (cancelled).

Claim 73 (new): A mathematics education kit comprising:

an array comprising a plurality of base array receiving positions, the base array receiving positions arranged in an array of rows; and

a plurality of number pieces associated with a plurality of corresponding numbers, wherein the number pieces have (a) a dimension that is proportional to the number of units corresponding to that number piece, and (b) a quantity of number piece receiving positions that is equal to the number of units corresponding to that number piece;

wherein the number pieces are configured to overlay a quantity of base array receiving positions that is equal to the number of units corresponding to that number piece;

wherein the number pieces are stackable atop each other by inserting a portion of a first stacked number piece into a number piece receiving position of a second stacked number piece; and

wherein the receiving positions on the array are labeled with numbers, and wherein the receiving position number labels are disposed adjacent to the corresponding receiving position.

Claim 74 (new): The mathematics education kit of Claim 73, wherein:

the base array receiving positions in a first row are labeled with a first series of numbers;

the base array receiving positions in a second row are labeled with a second series of numbers; and

the second series of numbers is consecutive to the first series of numbers.

Claim 75 (new): A mathematics education kit comprising:

an array comprising a plurality of base array receiving positions, the base array receiving positions arranged in an array comprising a plurality of rows; and

a plurality of number pieces associated with a plurality of corresponding numbers, wherein the number pieces have (a) a dimension that is proportional to the number of units corresponding to that number piece, and (b) a quantity of number piece receiving positions that is equal to the number of units corresponding to that number piece;

wherein the number pieces are configured to overlay a quantity of base array receiving positions that is equal to the number of units corresponding to that number piece;

wherein the number pieces are stackable atop each other by inserting a portion of a first stacked number piece into a number piece receiving position of a second stacked number piece;

wherein the receiving positions on the array are labeled with receiving position number labels; and

wherein the receiving position number labels are positioned (a) adjacent to the corresponding receiving position, and (b) between two rows in the array.

Claim 76 (new): The mathematics education kit of Claim 75, wherein the receiving position number labels are positioned on a raised element located between two rows in the array.

Claim 77 (new): The method of Claim 64, wherein the mathematical operation comprises addition and subtraction.